UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,477	04/27/2001	Robert Anderson Malaney	3961.46US01	9130

23552   7590   05/02/2006

MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER
HOM, SHICK C

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/844,477	MALANEY ET AL.
		Examiner	Art Unit	
		Shick C. Hom	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
> - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
> - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
> Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 April 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60 and 65-72* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *57-60* is/are allowed.

6)☒ Claim(s) *1-4,7-11,14-18,21-25,28-32,35-39,42-46,49-53 and 56* is/are rejected.

7)☒ Claim(s) *5,6,12,13,19,20,26,27,33,34,40,41,47,48,54,55 and 65-72* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-4, 7-11, 14-18, 21-25, 28-32, 35-39, 42-46, 49-53, and 56 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2.   Claims 1-56 and 65-72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 8, 15, 22, 29, 36, 43, 50 lines 7-10 which recite "the large buffer limit" lacks clear antecedent basis because no large buffer limit have been previously recited in the claims and therefore the limitation is not clearly understood; further claims 1, 8, 15, 22, 29, 36, 43, 50 lines 7-9 which recite having "an upper bound which approaches a straight line" is not clear as to what has an upper bound how it approaches a straight line.

Claims 2-7, 9-14, 16-21, 23-28, 30-35, 37-42, 44-49, 51-56, and 65-72 are rejected under 35 U.S.C. 112, second paragraph

because they depend from rejected claims 1, 8, 15, 22, 29, 36,

43, 50.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1, 8, 15, 22, 29, 36, 43, and 50 are rejected under

35 U.S.C. 102(b) as being anticipated by Hatono et al.

(5,737,314).

Regarding claims 1, 8, 15, 22, 29, 36, 43, 50:

    Hatono et al. disclose a method, apparatus, and computer

program of shaping input packet traffic (see abstract and col. 8

lines 35-49 which recite a method of traffic control in a switch

system including traffic regulation and restriction means), said

method comprising steps of: determining a constraint parameter

dependent upon a probability density function (see col. 6 lines

50-64 which recite the occurrence of congestion being decided

according to a determined probability density function reads on

the constraint parameter depending upon a probability density

function); constraining based upon said parameter, transmission

of the input packet traffic, thereby to produce output packet

traffic wherein the probability of buffer occupancy of a

downstream buffer receiving said output traffic versus buffer

occupancy of said downstream buffer has an upper bound which

approaches a straight line in the large buffer limit (see col. 7

line 50 to col. 8 line 14 which recite the use of a probability

density function for control in determining acceptable cell loss

probability including a curve representing the queue size

probability versus the queue size being represented by a

substantially straight line in the zone of a large queue size

reads on determining a constraint parameter dependent upon a

probability density function including the buffer having an

upper bound which approaches a straight line in the large buffer

limit).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically
disclosed or described as set forth in section 102 of this title, if the
differences between the subject matter sought to be patented and the prior
art are such that the subject matter as a whole would have been obvious at
the time the invention was made to a person having ordinary skill in the
art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

6.   This application currently names joint inventors. In
considering patentability of the claims under 35 U.S.C. 103(a),
the examiner presumes that the subject matter of the various
claims was commonly owned at the time any inventions covered
therein were made absent any evidence to the contrary.
Applicant is advised of the obligation under 37 CFR 1.56 to
point out the inventor and invention dates of each claim that
was not commonly owned at the time a later invention was made in
order for the examiner to consider the applicability of 35
U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior
art under 35 U.S.C. 103(a).

7.   Claims 2-4, 7, 9-11, 14, 16-18, 21, 23-25, 28, 30-32, 35,
37-39, 42, 44-46, 49, 51-53, and 56 are rejected under 35 U.S.C.
103(a) as being unpatentable over Hatono et al. (5,737,314) in
view of Boda et al. (5,687,292).

     For claims 2-4, 7, 9-11, 14, 16-18, 21, 23-25, 28, 30-32,
35, 37-39, 42, 44-46, 49, 51-53, and 56, Hatono et al. disclose

the method and apparatus described in paragraph 4 of this office

action. Hatono et al. disclose all the subject matter of the

claimed invention with the exception of wherein the method

comprises a further step of: selecting a type of the probability

density function as in claims 2, 9, 16, 23, 30, 37, 44, 51;

wherein a probability distribution function which is derived

from the probability density function of the selected type is

evaluated in conjunction with the determining step, thereby

permitting said determining of the constraint parameter as in

claims 3, 10, 17, 24, 31, 38, 45, 52; wherein a probability

distribution function which is derived from the probability

density function of the selected type is evaluated prior to the

determining step, thereby permitting said determining of the

constraint parameter as in claims 4, 11, 18, 25, 32, 39, 46, 53;

and wherein the probability density function is an exponential

function as in claims 7, 14, 21, 28, 35, 42, 49, 56.

Boda et al. from the same or similar fields of endeavor

teach in the related technique section that it is known to

provide the constraint parameter dependent upon a probability

density function wherein prior to the determining step, the

method comprises a further step of: selecting a type of the

probability density function and wherein the probability density

function is an exponential function (see col. 12 lines 20-45

which recite the selected type of density function being

exponential); wherein a probability distribution function which

is derived from the probability density function of the selected

type is evaluated in conjunction with the determining step,

thereby permitting said determining of the constraint parameter;

and wherein a probability distribution function which is derived

from the probability density function of the selected type is

evaluated prior to the determining step, thereby permitting said

determining of the constraint parameter (see col. 5 lines 11-31

which recite distributing transmission capacities among the

links of the network to achieve maximum carried traffic and the

optimization task and col. 11 line 38 to col. 12 line 10 which

recite weights being given in advance to obtain the set of link

capacities; and the new optimal link blocking probabilities

being computed using linear programming based on these

capacities values clearly reads on the probability distribution

function being evaluated prior and in conjunction with the

determining step, respectively). Thus, it would have been

obvious to the person having ordinary skill in the art at the

time the invention was made to provide the constraint parameter

dependent upon a probability density function; wherein prior to

the determining step, the method comprises a further step of:

selecting a type of the probability density function; wherein a

probability distribution function which is derived from the

probability density function of the selected type is evaluated

in conjunction with the determining step, thereby permitting

said determining of the constraint parameter; wherein a

probability distribution function which is derived from the

probability density function of the selected type is evaluated

prior to the determining step, thereby permitting said

determining of the constraint parameter; and wherein the

probability density function is an exponential function as

taught in the related technique section by Boda et al. in the

communications method of Hatono et al. The constraint parameter

being dependent upon a probability density function; wherein a

probability distribution function which is derived from the

probability density function of the selected type is evaluated

in conjunction with the determining step, thereby permitting

said determining of the constraint parameter; wherein a

probability distribution function which is derived from the

probability density function of the selected type is evaluated

prior to the determining step, thereby permitting said

determining of the constraint parameter; and wherein the

probability density function is an exponential function can be

implemented by using the technique of making the constraint

parameter to dependent upon a probability density function of

Boda et al. in the traffic regulator of Hatono et al. The
motivation for using the technique of making the constraint
parameter to dependent upon a probability density function
wherein a probability distribution function which is derived
from the probability density function of the selected type is
evaluated in conjunction with the determining step as taught by
Boda et al. in the communication method of Hatono et al. being
that it provides more efficiency for the system since the system
can optimize the operation of the network according to a given
objective density function.

Allowable Subject Matter

8.   Claims 57-60 are allowed.

9.   Claims 5-6, 12-13, 19-20, 26-27, 33-34, 40-41, 47-48, 54-
55, 65-72 would be allowable if rewritten to include all of the
limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is
considered pertinent to applicant's disclosure.
Elwalid et al. disclose a traffic shaper for network nodes and
method thereof.

11. Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Shick C.
Hom whose telephone number is 571-272-3173. The examiner can
normally be reached on Mon-Fri.

     If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Seema Rao can be
reached on 571-272-3174. The fax phone number for the
organization where this application or proceeding is assigned is
571-273-8300.

     Information regarding the status of an application may be
obtained from the Patent Application Information Retrieval
(PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status
information for unpublished applications is available through
Private PAIR only. For more information about the PAIR system,
see http://pair-direct.uspto.gov. Should you have questions on
access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

SH   *SH*

<div align="right">

Seema S. Rao   4/22/06

SEEMA S. RAO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

</div>